<u>REMARKS</u>

Claims 49-69 are pending. Claims 49-56 and 60-67 stand rejected under 35 U.S.C. § 103(a) as obvious over *Miyamoto et al.* (JP 05177056). Claims 49, 51, 57-59, 61 and 66-69 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mueller et al.* (United States Patent No. 4,550,250). Claims 49, 52, 58 and 67 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Regarding the personal computer communication protocol recited in amended claim 52, reference is made to the specification at page 17, lines 20-22.

Information Disclosure Statement

Applicants submit herewith an Information Disclosure Statement. It is respectfully requested that the references in the attached Statement be considered in the present application.

Rejections Under 35 U.S.C. § 103

Each of the claims in the present application are directed to a computer system capable of detecting certain information about a plurality of hand-held objects supported on a substantially horizontal surface for use by a personal computer. The computer system defined by the claims includes at least two processors ("a first processor" and "a second processor"). The processors function to identify a visual aspect of a hand-held object and/or a position of a hand held object. No prior art of record discloses, teaches or suggests such a computer system.

The Examiner asserts that *Miyamoto et al.* renders the claimed invention obvious under 35 U.S.C. § 103(a). Applicants disagree. *Miyamoto et al.* is directed to a simple dice reading device. Two identical dice are rolled on the device. As best as can be understood, the rolled numbers on the dice are detected by receiving coils 32 and read out on a readout section 40. Applicants respectfully submit that such a device does not anticipate or render obvious the claimed invention.

Claim 49 and all claims depending thereon (claims 50, 51 and 53-58) specifically require a computer system including a personal computer. These claims recite that the

personal computer includes a loading device for loading executable code, a storage device for storing executable code, a processor for processing code, and an output device for presenting a user interface. These claims also require that the computer system include a further processor.

Similarly, claim 52 and all claims depending thereon (claims 59-67) recite a computer system for use with a personal computer. The computer system of claims 52 and 59-67 includes "a first processor capable of encoding information . . . into a message compatible with a personal computer communication protocol." These claims also require a second microprocessor for identifying a visual aspect of an object or a position of an object.

The Examiner relies on the doctrine of inherency to assert that the computer system of *Miyamoto et* al. teaches the use of a personal computer. The Examiner states:

> In the *Miyamoto et al* abstract, there is disclosed a computer system comprising: . . . an inherent computer with output device, with stored executable code for the processing of information relating to the identification of said visual aspect . . .

Applicants submit that *Miyamoto et al.* does not disclose a personal computer, inherently or otherwise. Regarding inherency, the evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skilled." *Continental Can Co. v. Monsanto Co.*, 948 F. 2d 1264, 1268 (Fed. Cir 1991). The fact that a prior art reference is capable of being modified to arrive at the invention is not sufficient to support anticipation based on inherency. *In re Robertson*, 169 F.3d 743 (Fed. Cir. 1999).

Given the limited functionality of the dice reading device of *Miyamoto et al.*, a personal computer is not necessarily present in the reference's teachings. There is no evidence to lead to the conclusion that *inter alia* a loading device for loading executable code or a storage device for storing executable code is necessarily required for the *Miyamoto et al.* to properly function. Nor is there evidence that information is encoded into a message compatible with a personal computer communication protocol as required by claims 52 and 59-67.

Along these same lines, *Miyamoto et al.* would not teach, suggest or motivate one skilled in combine the dice reading device with the enormous resources of a personal

computer, including a loading device for loading executable code, a storage device for storing executable code, a processor for processing code, and an output device for presenting a user interface. There is simply no need to incorporate the personal computer's resources with a dice reading device.

Miyamoto et al. also fails to disclose, teach or suggest a computer system with two processors, as required by the claimed invention. The abstract of *Miyamoto et al.* makes no mention of a even single processor or controller capable of controlling the operation of the device. Absent such a teaching or suggestion, the claimed invention is patentable over *Miyamoto et al.* .

The Examiner additionally asserts that *Mueller et al.* renders the claimed invention obvious under 35 U.S.C. § 103(a). Applicants again disagree. As very clearly described in the specification, *Mueller et al.* is directed to a pointing device such as a mouse:

> In particular, the present invention comprises *a digital, hand-held mouse* in which a pulsatile point of light source is appropriately generated and transmitted omnidirectionally

(col. 2, lines 12-15)(emphasis added). In *Mueller et al.*, a single graphical input device (referred to as a GID) is maneuvered on a work surface. The coordinates of the single GID are sensed by a light (infrared) detector. The detection of the coordinate information allows the single GID of *Mueller et al.* to act as a pointing device.

The teaching of *Mueller et al.* is inapposite to the present invention. Each of the claims of the present invention is directed to a multiple object computer system. More specifically, each claim requires "a plurality of hand-held objects, an object of said plurality of hand-held objects having a unique visual aspect. . ." and "a substantially horizontal surface including at least a section capable of supporting said plurality of hand-held objects." The system of *Mueller et al.* does not disclose a computer system using plurality of hand-held objects and is incompatible with such a computer system of the present invention.

In fact, the computer system of *Mueller et al.* would not properly function in a multple object environment. As described above, *Mueller et al.* uses light (infrared)

detectors to sense the position of the GID. The light detectors of *Mueller et al.* require direct line of sight contact with the GID. *See e.g.,* Fig. 1 of *Mueller et al.* The presence of additional objects on the work surface would interfere with the line of sight requirement of *Mueller et al.*
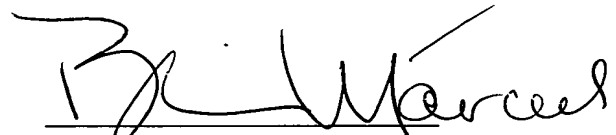
Moreover, the claims of the present invention require that at least one of the plurality of hand-held objects have "a unique visual aspect" and have a component "affecting an electrical change in said detecting element" (claims 49-51 and 53-58) or "exhibiting a characteristic representing said visual aspect" (claims 52 and 59-67). Again, *Mueller et al.* fails to disclose, teach or suggest that the GID has a unique visual aspect or corresponding component.

All of the dependent claims are allowable over the art of record for at least the reasons set forth above. In addition, Applicants disagree that any prior art of record anticipates or renders obvious the claimed invention wherein the unique visual aspect comprises an alphanumeric character (*see e.g.,* claim 53 and 62) or a picture (*see e.g.,* claim 54 and 63) or a color (*see e.g.,* claim 56 and 65).

All outstanding rejections have been overcome, pending claims 49-67 are believed to be in condition for allowance, early notice of which would be appreciated. The Examiner's prompt attention to this matter is greatly appreciated. Should further questions remain, the Examiner is invited to contact the undersigned attorney by telephone.

A petition for extension of time for three (3) months is attached hereto.

Respectfully submitted,

Dated: <u>March 26, 2001</u>

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49.   (Once amended) A computer system comprising:

a plurality of hand-held objects, an object of said plurality of hand-held objects having a unique visual aspect;

a substantially horizontal surface including at least a section capable of supporting said plurality of hand-held objects, said section having no predefined positions for supporting said plurality of hand-held objects;

a detecting element proximate to at least said section of said surface;

a first processor linked to said [sensing] detecting element;

a personal computer, including:

a loading device for loading executable code into said personal computer from an outside source;

a storage device for storing the executable code;

a second processor for processing at least the executable code, and

an output device for presenting a user interface;

a component within said hand-held objects capable of affecting an electrical change in at least a portion of said detecting element;

at least one of said first and second processors being capable of identifying at least one of: (a) said visual aspect of said hand-held object as a result of [based on] said electrical change, and (b) a position of said hand-held object on said surface. [based on a position of said portion of said detecting element.]

52.   (Once amended) A computer system comprising:

a plurality of hand-held objects, an object of said plurality of hand-held objects having a unique visual aspect and a component exhibiting a characteristic representing said visual aspect;

a substantially horizontal surface including at least a section capable of supporting said plurality of hand-held objects, said section having no predefined positions for supporting said plurality of hand-held objects;

a detecting element provided proximate to at least said section of said surface, at least a portion of said detecting element being capable of detecting said characteristic of said component;

a first processor capable of encoding information related to at least one of: (a) said detected characteristic and (b) a position of said hand-held object into a message compatible with a personal computer communication protocol;

a second processor [linked to said detecting element, said processor being] capable of receiving the encoded information and [identifying] recognizing at least one of: (a) said visual aspect of said hand-held object [based on] as a result of said detected characteristic, and (b) a position of said hand-held object on said surface. [based on a position of said portion of said detected element.]

58. (Once amended) A computer system as recited in claim 49, [wherein the computer system is capable of communicating with a personal computer via a communication link] further comprising a communication link facilitating communication between the first and second processors.

67. (Once amended) A computer system as recited in claim 52, [wherein the computer system is capable of communicating with a personal computer via a communication link] further comprising a communication link facilitating communication between the first and second processors.

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